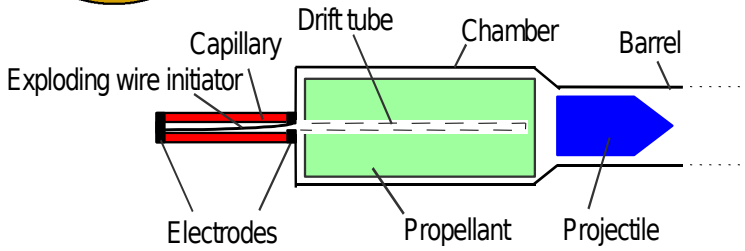
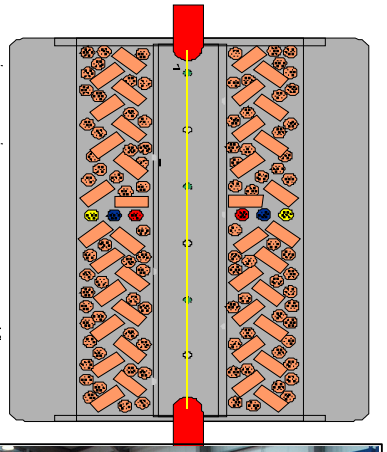
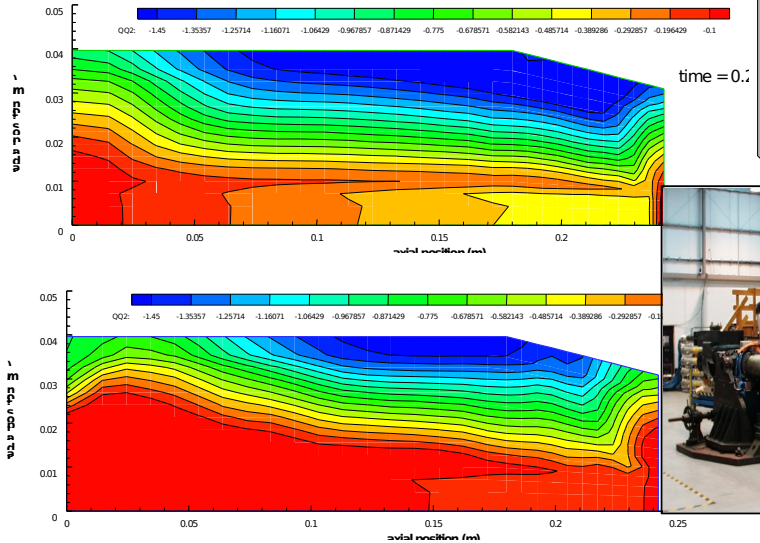
Electrothermal Chemical Guns

Conventional Weapons Technology Group / Energetic Materials & Propulsion Technology Panel







Program Name:
Electrothermal Chemical (ETC) Gun Simulation & Modelling.

Objective: Design of tests & instrumentation techniques to delineate ETC processes & to embody knowledge into numerical models.

Payoff: Work has contributed towards improved ETC designs and increased range and lethality.

Participants:

D A /C-IH

The program used a combination of simulators and modelling to investigate the plasma propagation, propellant ignition and flamespread processes in order to improve the design of igniters for use in ETC guns.

Future Activities:
Investigation of plasma-propellant interactions to optimise ignition of gun charges.